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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
CUTLER, ALBERT H	
ART UNIT	**PAPER NUMBER**
2622	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/806,228	NISHIOKA ET AL.	
	Examiner	Art Unit	
	ALBERT H. CUTLER	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 January 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *49,50,56,58 and 62* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *49,50,56,58 and 62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to communication filed on January 30, 2009.

Response to Arguments

2. Applicant's arguments with respect to claims 49 and 62 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 49, 50, 58 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuyama et al. (US 5,825,408) in view of Berreman (US 4,190,330).

Consider claim 49, Yuyama et al. teach:

An optical apparatus (figures 5 and 6) having a telephone function (Figures 5 and 6) depict a portable television receiver which has a camera section (106, column 9, lines

54-64). Within the device, image data can be modulated into an audio signal and sent over a telephone line (column 10, lines 25-28), and also received via a receiving unit for a telephone (column 10, lines 47-55). Note that in alternate embodiments shown in figures 4 and 17, the telephone receiver can be connected to the portable television receiver, and data can be output directly over a telephone line.) comprising:

an optical system (column 9, lines 44-64) with an optical element ("lens") having a variable focal length characteristic, that uses no polarizing plate, and forms an image whose brightness is independent of a polarized direction of incident light (The lens is used to focus images to be taken by the camera section, and can be moved in order to zoom in and out, column 10, lines 33-37. Yuyama et al. teaches that the lens (i.e. the optical element) of the camera section is moved along the optical axis in order to enlarge and reduce the image of the subject (i.e. to zoom in and out by varying the focal length). Therefore, the lens has a variable focal length characteristic. As the optical element is a lens, it requires no polarizing plate, and forms an image whose brightness is independent of a polarized direction of incident light.);

an image pickup device for picking up an image formed by said optical system (CCD, column 4, lines 19-24. See also, column 9, lines 59-64 for the recording of images.);

a display (105) for displaying a picked up image (column 9, lines 61-64);

and a memory ("recording section") for storing the picked up image (column 9, lines 59-61).

However, Yuyama et al. does not explicitly teach that the optical system contains no lens element that moves along the optical axis.

Berreman similarly teaches of an optical system of a camera having a variable focal length (See column 1, lines 6-18 and column 2, lines 18-26.).

However, in addition to the teachings of Yuyama et al., Berreman teaches that the optical system contains no lens element that moves along the optical axis (See figure 2, column 2, lines 60-64, column 3, lines 43-47 and column 3, line 59 through column 4, line 3.). The variable focusing device of Berreman (figure 2) produces a variable focusing effect by varying an electrical field between electrodes (24) in order to change the refractive index of liquid crystal material present in the focusing device (column 3, lines 43-47, column 3, line 67 through column 4, line 3). The optical device (figure 2, column 2, lines 50-64) contain no polarizing plate and produces a variable focusing effect independent of the polarization of incident light (column 3, line 67 through column 4, line 3).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to replace the variable focus lens taught by Yuyama et al. with the variable focus element taught by Berreman for the benefit of eliminating a mechanical drive unit necessary to change the focus of the optical device (Berreman, column 1, lines 10-15).

Consider claim 50, and as applied to claim 49 above, Yuyama et al. further teach a viewfinder (105) for determining an image pickup range (column 9, lines 61-64, column 5, lines 21-35).

Consider claim 58, and as applied to claim 49 above, Yuyama et al. further teach a microprocessor (CPU, 34, figure 3, column 6, lines 41-48).

Consider claim 62, Yuyama et al. teach:

An optical apparatus (figures 5 and 6) having a telephone function (Figures 5 and 6 depict a portable television receiver which has a camera section (106, column 9, lines 54-64). Within the device, image data can be modulated into an audio signal and sent over a telephone line (column 10, lines 25-28), and also received via a receiving unit for a telephone (column 10, lines 47-55). Note that in alternate embodiments shown in figures 4 and 17, the telephone receiver can be connected to the portable television receiver, and data can be output directly over a telephone line.) comprising:

an optical system (column 9, lines 44-64) having a focal point adjusting function which comprises an optical element ("lens") having a variable focal length characteristic, uses no polarizing plate and forms an image whose brightness is independent of a polarized direction of incident light (A lens (i.e. an optical element) is used to focus images to be taken by the camera section, and can be moved in order to zoom in and out, column 10, lines 33-37. Yuyama et al. teaches that the lens (i.e. the optical element) of the camera section is moved along the optical axis in order to enlarge and

reduce the image of the subject (i.e. to zoom in and out by varying the focal length). Therefore, the lens has a variable focal length characteristic. As the optical element is a lens, it requires no polarizing plate, and forms an image whose brightness is independent of a polarized direction of incident light.);

an image pickup device for picking up the image formed by said optical system (CCD, column 4, lines 19-24. See also, column 9, lines 59-64 for the recording of images.);

a display (105) for displaying a picked up image (column 9, lines 61-64);

a memory ("recording section") for storing the picked up image (column 9, lines 59-61); and

a microprocessor (CPU, 34, figure 3, column 6, lines 41-48).

However, Yuyama et al. does not explicitly teach that the optical system contains no lens element that moves along the optical axis.

Berreman similarly teaches of an optical system of a camera having a variable focal length (See column 1, lines 6-18 and column 2, lines 18-26.).

However, in addition to the teachings of Yuyama et al., Berreman teaches that the optical system contains no lens element that moves along the optical axis (See figure 2, column 2, lines 60-64, column 3, lines 43-47 and column 3, line 59 through column 4, line 3.). The variable focusing device of Berreman (figure 2) produces a variable focusing effect by varying an electrical field between electrodes (24) in order to change the refractive index of liquid crystal material present in the focusing device (column 3, lines 43-47, column 3, line 67 through column 4, line 3). The optical device

(figure 2, column 2, lines 50-64) contain no polarizing plate and produces a variable focusing effect independent of the polarization of incident light (column 3, line 67 through column 4, line 3).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to replace the variable focus lens taught by Yuyama et al. with the variable focus element taught by Berreman for the benefit of eliminating a mechanical drive unit necessary to change the focus of the optical device (Berreman, column 1, lines 10-15).

6. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yuyama et al. in view of Berreman, as applied to claim 49 above, and further in view of Hamblen (US 5,745,289).

Consider claim 56, and as applied to claim 49 above, the combination of Yuyama et al. and Berreman does not explicitly teach that the optical apparatus comprises a diffractive optical element.

Hamblen similarly teaches a lens (L1, figure 1) of an optical system of a camera (See column 1, lines 12-17 and lines 64-67, column 3, lines 18-43).

However, in addition the teachings of Yuyama et al., Hamblen teaches that a lens (L1, figure 1) of the optical system comprises a diffractive optical element ("DOE", column 1, lines 5-17, column 3, lines 18-20).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to include a diffractive optical element as taught by Hamblen in the optical system taught by the combination of Yuyama et al. and Berreman for the benefit of correcting for spherical and chromatic aberration as well as aberration due to thermal expansion and contraction (Hamblen, column 1, lines 12-17).

Conclusion

7. Any rejections made by the Examiner under 35 U.S.C. 112 are hereby removed in view of Applicant's response.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALBERT H. CUTLER whose telephone number is (571)270-1460. The examiner can normally be reached on Mon-Thu (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AC

/Sinh N Tran/
Supervisory Patent Examiner, Art Unit 2622